



## Forests on Fire

# The Los Alamos Inferno

—By Marilu Trainor

Incident meteorologist Chuck Maxwell said he has one of the best jobs at the National Weather Service. As one of the agency's specially trained fire-weather forecasters, Maxwell's love for his job as an IMET—and his mettle—were put to the test during the wildfires that erupted in May in the Los Alamos area of New Mexico.

The fires began May 4 when land management agency officials ignited a "prescribed burn" in the Bandalier National Monument. The burn was set to rid the area of trees and thick underbrush, which could touch off wildfires if struck by lightning.

"No IMET wants to be assigned to a fire that turns into a disaster," said Maxwell, a meteorologist at the Albuquerque, New Mexico, weather forecast office. "It gets quite lonely out there when

firefighters are fighting a losing battle and all you can do is issue your forecasts and watch."

For nearly three weeks, the fires continued to rage; but as weather conditions turned more favorable, firefighters were able to contain most of the fire. By the end of May, 98 percent of the fire was contained, but not before more than 47,000 acres burned.

Working at the Southwest Coordination Center in Albuquerque—*continued on page 2*



Ed Polasko/NOAA

NWS incident meteorologists Charles Maxwell (left) and Robert Tobin prepare for the daily briefing of the Forest Service in Albuquerque, New Mexico, May 18 on weather conditions and forecasts for the region where the Los Alamos fires were in progress.



NASA

NOAA's newest weather satellite, GOES-L, lifts off from Cape Canaveral May 3. It was renamed GOES-11 when it achieved geosynchronous orbit May 11.

## GOES-L Launched

—By Patricia Viets

At 3:07 a.m. on May 3 at Cape Canaveral Air Force Station, the nation's newest satellite blasted into space.

With a thunderous roar, a huge burst of fire and a cloud of smoke, GOES-L was lifted into space aboard an Atlas IIA rocket on a picture-perfect launch.

The team that made the launch possible embodies the qualities that produce success: expertise, skill, experience, dedication and a willingness to do whatever needs to be done to get the job done.

"NOAA's partners range from NASA's Goddard Space Flight Center to the Kennedy Space Center, along with Cape Canaveral—*continued on page 8*

# Inferno

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que, Maxwell was part of the multi-agency coordinating group supporting those fighting the fires, providing daily weather briefings, fire weather consultation and forecast graphics of the entire southwestern United States. Mike Chamberlin, an IMET from the Grand Junction, Colo., forecast office, provided the site-specific fire weather support for the Los Alamos fires.

Maxwell and Chamberlin are among approximately 40 IMETs in Weather Service offices around the country who can be dispatched onsite to support wildfire operations. IMETs support fire crew safety and tactical assistance to the fire management team by providing weather information and forecasts to the fire behavior analyst. IMETs receive special training in mesoscale forecasting, fire behavior and fire operations, which makes them crucial to the fire management team.

Charlie Liles, meteorologist in charge of the Albuquerque forecast office, knows about Maxwell's passion for fire weather forecasting and the office's kinship with fire fighters who battle wildland fires.

"National Weather Service meteorologists, in our offices and those who are dispatched across the country, play a vital role in support of efforts to control wildfires that rage across the United States each

year," Liles said. "We know firefighters' lives are at stake and we take that very seriously. We provide site-specific forecasting for wildfires of all sizes—from half an acre to many thousand acres."

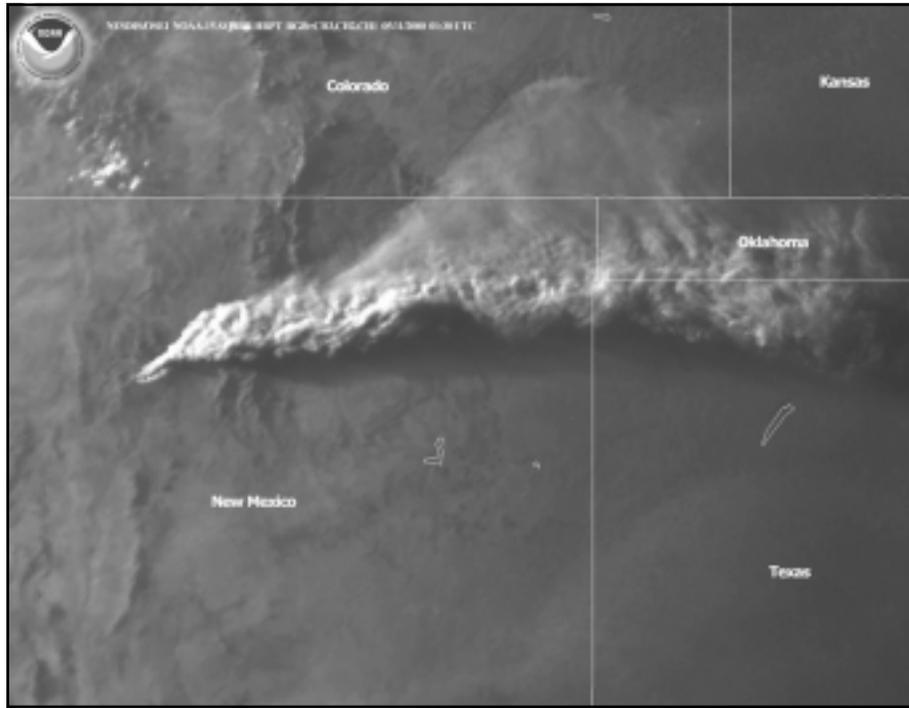
Liles added, "Weather, terrain and fuels, such as trees, brush and grasses, are key ingredients in fire behavior. Accurate forecasts of wind

were very pleased with the IMET support they received during this fire outbreak," said Liles, who described his job during the New Mexico wildfires as an added challenge.

"This was definitely an 'out of the box' experience for our entire staff," he said. "During this busy event, our station's management

team knew our primary responsibilities were making sure the staff remained focused on providing high quality products and services. We kept communications open and assured the staff they had done an excellent job with the forecasts, and let them stay focused on saving lives and properties."

Liles advises other managers handling a disaster, "The only way to plan for an event like this is



*The extent of the Los Alamos fires on May 11 is visible in imagery from the NOAA-15 satellite.*

direction and speed strongly influence fire strategy and help incident commanders make the best possible decisions to safely and efficiently control wildfires."

Millions of acres of natural forests and wildland areas are impacted by wildfires annually. Land management agencies request special site-specific forecasts, called spot forecasts. Key information such as wind speeds, humidity, temperature, how the weather conditions will change later that day and an outlook are part of an NWS spot forecast.

"The land management agencies

to make sure all programs are in good shape at all times, through quality control, drills and whatever else it takes. Consequently, when a situation like this develops, a trained staff of skilled professionals simply does its job to the best of its ability.

"We know that expectations are high from all our customers throughout the year and especially during the fire season. All managers in the National Weather Service realize that anything we do, any forecast we prepare, may become a focus of the next major national story." ☺

## Bud Cross: Farewell to a Legend

—By Chris Smith

*This is the sixth in a series of profiles of men and women who have been NOAA employees since NOAA was established in 1970.*

**F**ord A. "Bud" Cross, a veteran of more than 33 years of federal service, 30 of them with NOAA, retired from government on May 3.

After completing his doctoral studies in oceanography at Oregon State University in 1967, Cross entered federal service as a research scientist with the U.S. Fish and Wildlife Service at what was then the Bureau of Commercial Fisheries Radiobiological Laboratory in Beaufort, N.C.

"I studied the effects of radioactivity on marine life. That was the primary mission of the lab at the time, so it was a perfect fit for me," said Cross. "Over the years, especially when the lab was transferred to NOAA in 1970, the lab's missions have changed and expanded considerably," he said.

Those changes, however, were not significant enough to scare the Ohio native and rabid Cleveland Indians fan away from the lab. In fact, he spent his entire career there.

In 1975 he was promoted to the chief of the lab's ecology division and, in 1985, was appointed as the lab's director, a position he held until his retirement.

"I found the changes to be incredibly challenging because so many new technologies were being brought on line in the early seventies and the Beaufort lab was the place to be to help discover how they could best be applied," said Cross.

Indeed, Cross thrived on working with teams that developed and



Chris Smith/NOAA

*Bud Cross: "I'm going to retire to a log cabin on my 200 acres of forest in northern Michigan, grow a huge beard and learn to adjust to life without electricity or running water."*

implemented high-tech programs that are now institutionalized nationally.

"I suppose the things I'm most proud of all entailed working with others to develop valuable applications for the new tools at our disposal," said Cross. "I was on the Coastal Change Analysis Program team that developed techniques for using satellite imagery to measure the impact of land cover changes on marine environments. The objective of the program is to compare satellite images of specific areas over a span of several years to determine the effect that deforestation and development have on water quality. That program is now operational and managed out of NOAA's Coastal Services Center in Charleston," Cross said.

"I was also on the Coast Watch Program team that originated in the early 1980s at the Beaufort lab to study red tide events off the coast of North Carolina. This is now a national program that uses  
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## NASCAR Champ Darrell Waltrip Stars in Flood PSA

—By Robert Chartuk

**T**he unique pairing of NASCAR racing and the National Weather Service will save lives, that is according to driver Darrell Waltrip, star of a new public service announcement warning of the dangers of driving on flooded roadways.

"I take chances out on the race track. But one thing I'd never do is take chances on the road," the three-time Winston Cup champion tells his audience.

"Each year, the National Weather Service reports dozens of fatalities that occur when people drive in flooded areas. These deaths could be prevented with a little caution," Waltrip says.

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Robert Chartuk/NOAA

*National Weather Service Deputy Director John Jones (center) thanks NASCAR racer Darrell Waltrip (left) for his public service announcement warning of the dangers of driving on flooded roadways, as Deputy Under Secretary Scott Gudes looks on.*

# Focus On...

## 25th Annual Fish Fry

Over 800 NOAA employees, their family members and guests from Capitol Hill, other agencies and the private sector attended the twenty-fifth annual NOAA Fish Fry, held in the cafeteria of the Herbert C. Hoover Building in Washington, D.C., May 24.

The event was co-sponsored by the National Fish and Wildlife Foundation and the National Fisheries Institute, with contributions from the Department of Commerce, the American Sportfishing Association and the National Fisheries Institute.

The Teresa & H. John Heinz III Foundation, Anheuser-Busch, Inc., the Eastern Fish Company of Teaneck, N.J., and the Glacier Fish Company of Seattle, Wash., also provided support.

Door prizes were contributed by SATO Travel, the J.W. Marriott Hotel, the National Aquarium, the NOAA-NIH Recreation and Welfare Association, Zadeco Crayz, the Red Sage Restaurant, the NOAA Voluntary Action Committee, Palomino Restaurant and the community support organizations for the National Estuarine Research Reserves.

All photographs are by DOC photographer Iris Harris. ☺



Administrator D. James Baker and Mrs. Baker (left) greet Senator Ernest F. Hollings and Mrs. Hollings on their arrival at the Fish Fry.



Over 100 volunteers set up tables, prepared and served food, and cleaned up after the event.



*Balloons were a big hit with the small fry.*



*Fish Fry guests feasted on a variety of seafood served up by several seafood restaurants.*



*The perfect Fish Fry mix: fresh seafood, cold beer and good company.*



*Zadeco Crayz rocked the house.*



*For many, the Fish Fry is a family affair.*

## Notes From the GOES-L Launch

—By Gerald J. Dittberner

It is just after midnight on May 3, 2000. As the countdown continues toward the launch of GOES-L, I sit at a console in the mission directors center at Cape Canaveral Air Force Station, watching events unfold on a series of monitors.

We are a safe distance of about 3 miles from launch pad 36A. The center has a special section for five managers, including Steve Kirkner, NOAA's GOES acquisition manager, and me, NOAA's GOES program manager. Our presence guarantees immediate availability when crucial decisions need to be made rapidly.

The countdown continues. It is about 2:15 a.m. I notice that for several minutes there is almost no traffic; that is, no one is talking. Everyone seems to be just waiting for the clock to tick down.

On the two previous launches I attended, there was traffic almost all the time in some form or another. This time, however, it is very quiet—meaning everything is going extremely well.

The space station MIR passes far overhead as scheduled, a good half hour ahead of GOES-L. In the near silence it occurs to me that we've been ready to launch for over 12 months. In fact, the spacecraft has been at the Cape since December 1998 and has been kept fully ready by our NASA, Space Systems/Loral and ITT launch team.

At 3:07 a.m., a few of us run outside to see the rocket rise over a building. What a beautiful bright white rocket assembly, lit with brilliant orange against a deep black sky.

Go Atlas! Go Centaur! Go GOES!

After a few minutes the rocket



NASA

*In preparation for the launch of GOES-11, the upper stage of the Atlas II/Centaur rocket is lifted up the gantry of pad 36A at Cape Canaveral Air Force Station.*

disappears from sight, and we run back inside the control center to watch the graphs and telemetry indicators as the rocket performs its duty. First the Atlas booster stage finishes and separates, getting rid of the clam-shell faring along the way. Then the Centaur's RL-10 engines fire twice, as planned, with no problems. It must be noted that after a similar engine failed in a May 1999 launch of another rocket, our engines were replaced with ones selected after additional screening and testing. Their successful performance is an extra bonus and a tribute to the hard and careful work of Marty Davis of Goddard Space Flight Center, Steve Kirkner of NOAA's Systems Acquisition Office and the entire GOES launch team.

When the Centaur is done firing, it separates from GOES-L. At the moment of successful spacecraft separation, all of us stand up and cheer, shake hands and congratulate each other. Then 200 or so rocket people in the mission directors center and the 400 or so visitors watching the launch from metal bleachers outside all head off

base for a celebration breakfast. It's about 3:30 a.m.

Few people may be aware of what comes next. After separation we have a successful insertion of our satellite into the proper orbit. But there are still about a dozen of us left in the control room, now joined by public affairs officers from NESDIS and NASA, watching to see if GOES-L is a viable spacecraft. A crucial event takes place at about 60 minutes after separation: as the satellite comes out of the shadow of the Earth, one of its two solar power arrays swings out about 90 degrees so that, hopefully, it will be illuminated by the sun and can get power. This deployment is absolutely vital, or we lose the spacecraft. In the center, we hold our breaths.

It is successful! Only then can we depart for whatever is left of breakfast after the other hungry launch-watchers.

I had never seen or heard a post-launch breakfast speech, and this time is no different. When I walk through the doors about 5 a.m., I

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## Students Win BIG Scholarships

On May 25, the NOAA chapter of Blacks In Government in Silver Spring, Md., awarded \$1,000 scholarships to six outstanding seniors from Washington, D.C., area high schools.

At least one scholarship is reserved for the child of a NOAA employee. Three of this year's winners, Jamila Galloway, LaTanya Jackson and Benjamin Nesbitt, are children of NOAA employees.

Renowned broadcast journalist and community activist Joe Madison was the guest speaker for the scholarship award ceremony held in NOAA's Silver Spring Metro Center.

BIG scholarship candidates must indicate a desire to major in a science or science-related discipline, and must excel in six areas: scholastic achievement (GPA 3.0+), school activities, leadership, community outreach, special talents and moral character.



*Juan Tricoche/DOC*

The NOAA/Silver Spring chapter of Blacks In Government presented \$1,000 scholarships to six local high school seniors. Pictured left to right: BIG scholarship committee chairman Barbara Tobe, Claretta Jackson (mother of student winner LaTanya Jackson), Brooktiete Asseres, broadcast journalist Joe Madison, Jamila Galloway, BIG President Bernard Cody, Benjamin Nesbitt, Devin Mills and Ponquiose Crawford.

Entertainment at the ceremony was provided by saxophonist and NOAA employee Michael Washington and students from Duke Ellington High School, with Andrew White and Robert Rhodes

on guitar and Michael Decastro on drums.

Barbara Tobe, vice president and chairman of the BIG scholarship committee, served as master of ceremonies. ☺

## Waltrip

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Waltrip and two members of the NOAA leadership unveiled the flood safety PSA at Lowe's Motor Speedway in Charlotte, N.C., May 26.

Weather Service Deputy Director John Jones and Deputy Under Secretary for Oceans and Atmosphere Scott Gudes took the opportunity to identify flooding as the number one cause of weather-related fatalities in the U.S. and to note that driving in flood waters accounts for more than half of these deaths.

"Darrell Waltrip is the best spokesman you could ask for to reach people with this critical public safety message," Gudes was quick to say. "Not only does he

have the star appeal of a winning NASCAR racer, he represents a sport that relates directly to the motoring public."

Gudes and Jones reminded the news media at the speedway that many of the auto-related flood deaths can be avoided, and that it only takes six inches of water to cause a driver to lose control of a car or a truck.

Waltrip said he turns to his NOAA Weather Radio the first thing every morning, calling it nearly a ritual for him and his fellow racers.

"I'd like to thank the folks at the National Weather Service for sending me one of their weather radios as part of the filming of the public service announcement," Waltrip told the press. "I thought

so much of it, I went out and bought one for my mother and my brother." ☺

## Notes From the Launch

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hear "...and thank you for coming tonight, and drive safely."

As people shuffle wearily out the doors, there's still enough food left for us.

Once again finding myself in near silence, I am proud that everyone's hard work made it possible that GOES-L was not only successfully launched, but it came to life at the crucial moment. Our nation has another satellite to make sure the coming hurricanes will be watched, property will be protected, the economy will remain robust and lives will be saved. ☺

## GOES-L

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Air Force Station and the Air Force's 45th Space Wing," said NOAA's GOES acquisition manager Steve Kirkner. "And that's just on the government side. From the private sector, we have Space Systems Loral, ITT, Lockheed Martin/International Launch Services and many subcontractors all working together as a team toward a successful launch."

The launch of the satellite was only the beginning of a period of hours and months before the satellite completes testing and is turned over to NOAA from NASA for operational use.

Four minutes and 43 seconds after lift-off, the lower stage Atlas successfully separated from the Centaur upper stage. Twenty-seven minutes after lift-off, the Centaur separated from the satellite. Since then, motor firings have been performed to move the satellite into its proper geosynchronous orbit.

On May 11, GOES-L achieved geosynchronous orbit and was renamed GOES-11.

"I have now launched seven satellites for NOAA, three polar and four GOES," Kirkner said. "The feeling of excitement and

accomplishment at lift-off never changes, as the launch vehicle slowly clears the tower and then, what seems to be only seconds later, disappears from sight. At that moment one's thoughts turn to hope, the hope that the millions of parts built in the launch vehicle, spacecraft and instruments all perform their functions as designed, leading to mission success for many years."

In geosynchronous orbit, GOES-11 joins GOES-8, overlooking the east coast of the United States and well out into the Atlantic Ocean, and GOES-10, overlooking the west coast of the United States and well out into the Pacific Ocean, including Hawaii.

"GOES satellites are vital to weather forecasting in the United States," said Kirkner. "The GOES satellites are a critical component of the ongoing National Weather Service modernization program, aiding forecasters in providing more precise and timely forecasts."

GOES-11 will be stored on orbit ready for operation when needed as a replacement for GOES-8 or -10. "GOES-11 will ensure continuity of GOES data from two GOES, especially for the Atlantic hurricane season," Kirkner said.

"The launch of GOES-L, 40 years after the launch of the first

meteorological satellite by the United States, marks a milestone in international cooperation," said professor Olu Patrick Obasi, secretary-general of the World Meteorological Organization. "It symbolizes the continued commitment of the United States to the World Meteorological Organization and in particular, its support to the Global Observing System of WMO's World Weather Watch," he said.

NOAA's National Environmental Satellite, Data and Information Service operates the GOES series of satellites, which are acquired through NOAA's Systems Acquisition Office. After the satellites complete on-orbit checkout, NOAA assumes responsibility for command and control, data receipt, and product generation and distribution.

The final satellite in the current GOES series (GOES I-M) will be launched as required to support NOAA's dual-satellite geostationary observing system.

"The multitudes of government and contractor personnel should be proud of the many successes the GOES I-M series of satellites has achieved, providing valuable data the nation and the world meteorological community," Kirkner said. ☺

## Bud Cross

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sea surface temperature and other satellite measured parameters that gives tremendous flexibility to those engaged in environmental response research. Coast Watch data are now distributed regionally to users at all level of government and the private sector in near real time," Cross said.

During the last 15 to 20 years, Cross has often been recognized for his work to promote healthy interactions among NOAA scientists, managers and constituents.

"It's gratifying to see how our scientists and resource managers in the habitat arena are working hand-in-hand to bring great credibility to the agency," Cross said.

During a special send-off farewell held at the Southeast Regional Office in St. Petersburg, Fla., on May 9, Cross declared, "I'm going to retire to a log cabin on my 200 acres of forest in northern Michigan, grow a huge beard and learn to adjust to life without electricity or running water." ☺

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